



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In the matter of the PATENT application of

Inventor Wilson Smart et al

Title SILICON NITRIDE WINDOW FOR MICROSAMPLING DEVICE
AND METHOD OF CONSTRUCTION

Ser.No. 09/816,497
Filed March 26, 2001

Patent Examiner unassigned
Art Group Unit 1743

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Commissioner for Patents
Washington D.C. 20231

October 19, 2001

PRELIMINARY AMENDMENT
SUBMISSION OF SUBSTITUTE FORMAL DRAWING
CLEAN COPY OF WRITTEN DESCRIPTION
(under 37 CFR 1.121)

Sir;

This paper is submitted as a Preliminary Amendment
to the above identified recently filed application.
Please amend this application as follows:

IN THE DETAILED DESCRIPTION:

Page 2, line 12, AFTER "September"

CHANGE "I" to --1--.

Page 2, line 27, DELETE "widely".

Page 2, line 31, AFTER "Further,"

CHANGE "it" to --the window--.

Page 4, line 26, BEFORE "microsampling"

DELETE "the".

Page 5, line 22, AFTER "wafer;" DELETE "and".

Page 5, line 26, CHANGE "film." TO --film;--.

Page 5, line 27, ADD the following paragraphs

concerning Figures 2A-2C showing a microsampling device.

--FIG. 2A is a top view of microsampling device 20;

FIG. 2B is a sectional side view of device 20 of

FIG. 2A across lines IIB-IIB, showing sample chamber 20C
and chamber window 24W; and

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FIG. 2C is a sectional end view of device 20 of
FIG. 2A across lines IIC-IIC.--

Page 7, line 4, AFTER "top surface"

INSERT --11S (sampling side)--.

Page 7, line 4, AFTER "bottom surface"

INSERT --11V (viewing side)--.

Page 7, line 12, CHANGE "FIGS." TO --FIG.s--.

Page 8, line 9, CHANGE "the silicon wafer"

TO --silicon wafer 10d--.

Page 8, line 11, BEFORE "silicon" DELETE --the--.

Page 8, line 11, AFTER "window" INSERT --12d--.

Page 8, line 12, add the following paragraph
concerning the microsampling device of Claims 19-26.

--Microsampling device 20 for obtaining a
microsample of bodily fluid from a subject, is shown in
FIG.s 2A, 2B, and 2C. Silicon substrate 20S has chamber
20C with sampling side 21S and viewing side 21V for
containing and viewing the microsample (not shown).
Chamber window 24W formed of silicon nitride covers the
chamber for closing the viewing side thereof. The silicon
substrate may have a thickness of about 500 micrometers,
and the silicon nitride window may have a thickness of
from about 0.01 of a micrometer to about 5 micrometers.
The silicon nitride forming the window is preferably of
optical quality. An antireflective coating of a suitable
material such as magnesium fluoride may be provided the
silicon nitride window. Closure member 24C may be
provided over the chamber for closing the sampling side.
The closure member engages the substrate around the
periphery of the chamber forming an interface
therebetween. Needle 26N formed at needle end 26 of the
device may be provided for obtaining the sample. Intake
bore 26B for transporting the sample into the chamber,
extends from the needle end to the chamber along the
interface between the closure member and the substrate.
Exhaust vent 26V for venting the chamber as the sample is
transported into the chamber, extends from the chamber
away from the needle end along the interface between the